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By: A wester Cooker (person actually depositing)

Patent Application of: Jeff Zablocki, et al.

Title: Partial or Full A1 Agonists - N6 Heterocyclic 5' Thio Substituted Adenosine Derivatives

 \underline{X} Patent Application ($\underline{54}$ pages, including claims)

X Transmittal Letter to the United States Designated/Elected Office (DO/EO/US)

X Postcard

X Copy of International Search Report

X Check

X Information Disclosure Statement

X Form PTO-1449

X Cited References

 \underline{X} Petition for Revival of an International Application for Patent Designating the U.S. Abandoned Unintentionally under 37 CFR 1.137(b) and Patent Data Sheet

Attorney Docket No.:99,913-X

JC10 Rec'd PCT/PTO 0 1 NOV 2001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (Case No. 99,913-X)

In the Applic	eation of:)
	Jeff Zablocki et al.)
Serial No.	To Be Assigned)
Filed:	Concurrently Herewith)
Title:	Partial or Full A ¹ Agonists N ⁶ Heterocyclic 5' Thio Substituted Adenosine Derivatives)

INFORMATION DISCLOSURE STATEMENT

Asst. Commissioner of Patents Washington, D.C. 20231

Dear Sir:

Pursuant to 37 C.F.R. Section 1.97-1.98, applicants wish to make the following references of record in the above-identified application. These references may be material to the Examiner's consideration of the presently pending claims. Copies of the references cited below are enclosed along with a completed Form-1449.

U.S. Patents

	Patent Number	Inventor	Issue Date
1.	5,789,419	Lum et al.	August 4, 1998
2.	4,373,097	Stramentinoli et al.	February 8, 1983
3.	5,589,467	Lau et al.	December 31, 1996

McDONNELL BOEHNEN HULBERT & BERGHOFF 300 South Wacker Drive, 32nd Floor Chicago, Illinois 60606

Printed Publications

- 1. B. Lerman et al, "Cardiac Electrophysiology of Adenosine", *Circulation*, Vol. 83 (1991) p. 1499-1509
- 2. J.C. Shryock, "Adenosine and Adenosine Receptors in the Cardiovascular System: Biochemistry, Physiology, and Pharmacology", *The Am. J. Cardiology*, Vol. 79 (1997) p. 2-10
- 3. J.D. Thornton, "Intravenous Pretreatment with A₁-Selective Adenosine Analogues Protects the Heart Against Infarction". *Circulation*, Vol. 85 (1992), p. 659-665
- 4. E. A. van Schaick et al., J., "Physiological Indirect Effect Modeling of the Antilipolytic Effects of Adenosine A₁-Receptor Agonists", *Pharmacokinetics and Biopharmaceutics*, Vol. 25 (1997) p. 673-694
- 5. P. Strong, "Suppression of non-esterified fatty acids and triacylglycerol in experimental animals by the adenosine analogue GR79236", *Clinical Science*, Vol. 84 (1993), p. 663-669
- 6. D. Thiebaud et al, "Effect of Long Chain Triglyceride Infusion on Glucose Metabolism in Man", *Metab. Clin. Exp.*, Vol. 31 (1982), p. 1128-1136
- 7. G. Boden et al., "Mechanism of Fatty-Acid-Induced Inhibition of Glucose Uptake", J. Clin. Invest., Vol. 93, (1994) p. 2438-2446
- 8. P.J. Randle et al., "The Glucose Fatty-Acid Cycle Its Role in Insulin Sensitivity and the Metabolic Disturbances of Diabetes Mellitus", *Lancet* (1963) p. 785-789
- 9. Klitgaard, et al., "Contrasting Effects of Adenosine A₁ and A₂ Receptor Ligands in Different Chemoconvulsive Rodent Models," Eur. J. Pharmacol (1993), Vol. 224, pp. 221-228
- 10. G. Zhang, "Activation of adenosine A1 receptors underlies anticonvulsant effect of CGS21680", Eur. J. Pharmacol, Vol. 255 (1994), p. 239-243
- 11. Knutsen, "N-Substituted Adenosines as Novel Neuroprotective A1 Agonists with Diminished Hypotensive Effects", *J. Med. Chem.*, Vol 42 (1999) p. 3463-3477

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- 12. Vergauwen, et al., "Adenosine Receptors Mediate Synergistic Stimulation of Glucose Uptake and Transport by Insulin and by Contractions in Rat Skeletal Muscle", *J. Clin. Invest*, (1994) 93, 974-81
- 13. Gellai, et al., "CVT-124, a Novel Adenosine A1 Receptor Antagonist with Unique Diuretic Activity", *JPET*, (1998) 286, p. 1191-6
- 14. Wilcox. et al., "Natriuretic and Diuretic Actions of a Highly Selective Adenosine A₁ Receptor Anagonist," J. Am. Soc. Nephrol, (1999) 10, p. 714-720
- 15. R.B. Clark, et al., "Partial agonists and G protein-coupled receptor desensitization", *TiPS*, Vol. 20 (1999), p. 279-286
- 16. D. M. Dennis et al., "Homologous Desensitization of the A1-Adenosine Receptor System in the Guinea Pig Atrioventricular Node," *JPET*, Vol 272 (1995), p. 1024-1035
- 17. Parsons, J., "Heterologous Desensitization of the Inhbitory A1 Adenosine Receptor-Adenylate Cyclase System in Rat Adipocytes", *Biol. Chem.* Vol 262 (1987) p. 841-847
- 18. Snowdy, S., et al. "A Comparison of an A1 Adenosine Receptor Agonist (CVT-510) with Diltiazem for Slowing of AV Nodal Conduction in Guinea-Pig", *British Journal of Pharmacology*, 126, p. 137-146 (1999).

Respectfully submitted,

McDONNELL BOEHNEN HULBERT & BERGHOFF

Dated: November 1, 2001

By:

A. Blair Hughes Reg. No. 32,901

O Rec'd PCT/PT **FORM PTO-1449** U.S. D partment of Commerc Atty. Docket No. Serial No. (Rev. 2-32) Patent and Trademark Office 99,913-X To Be Assigned-**INFORMATION DISCLOSURE** STATEMENT BY APPLICANT (Use several sheets if necessary) Applicant: Zablocki et al Filing Date: Group: 11/1/01

U.S. PATENT DOCUMENTS

Examin r Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriat
	5,789,419	8/4/98	Lum et al.			
	4,373,097	2/8/93	Stramentinoli et al.			
	5,589,467	12/31/96	Lau et al.			

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	Document Number	Date	Country	Class	Subclass	Translation	
<u> </u>			·			Yes	N
 <u></u>							

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

	B. Lerman et al, "Cardiac Electrophysiology of Adenosine", <i>Circulation</i> , Vol. 83 (1991) p. 1499-1509
	J.C. Shryock, "Adenosine and Adenosine Receptors in the Cardiovascular System: Biochemistry, Physiology, and Pharmacology", <i>The Am. J. Cardiology</i> , Vol. 79 (1997) p. 2-10
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	P. Strong, "Suppression of non-esterified fatty acids and triacylglycerol in experimental animals by the adenosine analogue GR79236", <i>Clinical Science</i> , Vol. 84 (1993), p. 663-669
EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

<u>,</u> , •		Rec'd PCT/PT	980533
FORM PTO-1449 (Rev. 2-32)	U.S. Department f Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
s	FORMATION DISCLOSURE ATEMENT BY APPLICANT seeveral sheets if necessary)	99,913-X	To be Assigned
		Applicant:	
		Zablocki et al.	
		Filing Date:	Group:
		11/1/01	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

	D. Thiebaud et al, "Effect of Long Chain Triglyceride Infusion on Glucose Metabolism in Man", <i>Metab. Clin. Exp.</i> , Vol. 31 (1982), p. 1128-1136
	G. Boden et al., "Mechanism of Fatty-Acid-Induced Inhibition of Glucose Uptake", <i>J. Clin. Invest.</i> , Vol. 93, (1994) p. 2438-2446
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	Gellai, et al., "CVT-124, a Novel Adenosine A1 Receptor Antagonist with Unique Diuretic Activity", <i>JPET</i> , (1998) 286, p. 1191-6
	Wilcox. et al., "Natriuretic and Diuretic Actions of a Highly Selective Adenosine A1 Receptor Anagonist," <i>J. Am. Soc. Nephrol</i> , (1999) 10, p. 714-720
	R.B. Clark, et al., "Partial agonists and G protein-coupled receptor desensitization", <i>TiPS</i> , Vol. 20 (1999), p. 279-286
	D. M. Dennis et al., "Homologous Desensitization of the A1-Adenosine Receptor System in the Guinea Pig Atrioventricular Node," <i>JPET</i> , Vol 272 (1995), p. 1024-1035
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	Snowdy, S., et al. "A Comparison of an A1 Adenosine Receptor Agonist (CVT-510) with Diltiazem for Slowing of AV Nodal Conduction in Guinea-Pig", <i>British Journal of Pharmacology</i> , 126, p. 137-146 (1999).
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